

IN THE CLAIMS

Please amend Claims 1, 4, 5, 9, 11, 12, 14-21 as indicated.

Please add new Claims 23-26 as indicated.

Please cancel Claims 6, 7, 10 and 22 without prejudice and without disclaimer of subject matter.

1. (Currently amended) A system for creating signals indicative of a graphical user interface from wide-angle image data corresponding to a monitored area, said system comprising:

a buffer configured to receive wide-angle image data corresponding to the monitored area; and

a processor operably coupled to said buffer and configured to;

transform wide angle image data received by the buffer into;

panoramic view data corresponding to at least one panoramic view of the monitored area; ~~and into~~

virtual view data corresponding to at least one virtual view of a portion of the at least one panoramic view; and

encode at least one panoramic image and at least one virtual view from the wide angle image data for display.

2. (Original) A system according to claim 1, further comprising:

a user input module configured to provide user command data to said processor; and

said processor being further configured to determine the virtual view data based on the user command data.

3. (Original) A system according to claim 2, wherein the processor is further configured to determine reference data corresponding to an area in the panoramic view represented by the virtual view.

4. (Currently amended) A system according to claim ~~2~~ 4, further comprising a first video camera system ~~source of wide-angle image data~~ operably coupled to said buffer ~~and said processor, said first video camera system operable to generate wide-angle image data.~~
5. (Currently amended) A system according to claim 4, wherein said ~~source~~ video camera system includes a fisheye lens.
6. (Cancelled)
7. (Cancelled)
8. (Original) A system according to claim 1, wherein said processor performs operations on the wide-angle image data to correct distortion in the wide-angle image data, such that said panoramic view and said virtual view are corrected images.
9. (Currently amended) A system according to claim ~~4~~ 4, further comprising:
a ~~dome~~ second video camera system operably coupled to ~~the~~ said buffer and said processor, said ~~dome~~ second video camera system having a ~~dome~~ second video camera and being configured to aim the ~~dome~~ second video camera at a portion of the monitored area according to pan, tilt and zoom command data, and configured to capture video image data; and
wherein the processor is further configured to communicate pan, tilt and zoom command data to cause the ~~dome~~ first video camera system to aim the ~~dome~~ first video camera at ~~a portion of the monitored area; and~~
wherein captured video image data from the second video camera is included in the at least one virtual view.
10. (Cancelled)
11. (Currently amended) A system according to claim ~~4~~ 40, wherein the system transforms wide-angle image data received by the buffer into virtual view data corresponding to at least one

virtual view and into panoramic view data corresponding to at least one panoramic view in real time.

12. (Currently amended) A system according to claim 1 2, further comprising a display device operably coupled to said processor to display the at least one panoramic view and the at least one virtual view.

13. (Original) A system according to claim 12, where the at least one panoramic view corresponds to a substantially undistorted view of the monitored area, and the at least one virtual view corresponds to a portion of the at least one panoramic view.

14. (Currently amended) A system according to claim 12, further comprising at least one reference window overlaid on at least one portion of the at least one panoramic view, each overlaid portion ~~corresponding to~~ defining the portion of the at least one panoramic view to which the at least one virtual view corresponds, and the at least one reference window having a size and a position determined according to the user command data.

15. (Currently amended) A system according to claim ~~14~~ 12, wherein:

the at least one panoramic view includes a first panoramic view and a second panoramic view, the first panoramic view corresponding to a first portion of the monitored area, and the second panoramic view corresponding to the remaining portion of the monitored area; ~~and;~~

the at least one virtual view includes a first virtual view and a second virtual view, the first virtual view corresponding to a first portion of the first panoramic view, and the second virtual view corresponding to a second portion of the second panoramic view; and

a combination of the first panoramic view and the second panoramic view provide a 360° view of the monitored area relative to a vertical axis.

16. (Currently amended) A method of generating a graphical user interface, said method comprising steps of:

buffering wide-angle data corresponding to a wide-angle image of a monitored area;

transforming the buffered data into panoramic data for at least one panoramic view using a panoramic transformation; and

transforming portions of the buffered data into virtual view data for at least one virtual view using a virtual view transformation.

17. (Currently amended) A method according to claim 16, further comprising ~~steps of:~~
determining pan, tilt and zoom values;
determining the portions of the buffered data to transform into virtual view data for at least one virtual view based on the pan, tilt and zoom values.

18. (Currently amended) A method according to claim 17, further comprising ~~a step of~~ determining reference data based on the pan, tilt and zoom values.

19. (Currently amended) A method according to claim 18, wherein ~~the at least one virtual view includes a first virtual view and a second virtual view~~ the buffered wide-angle data is received from a first video camera system, said methodology further comprising ~~steps of:~~
communicating pan, tilt and zoom commands to a ~~dome~~ second camera system; and
receiving ~~producing~~ virtual view data for ~~one of the at least one first virtual view or second virtual view~~ from the ~~dome~~ second camera system.

20. (Currently amended) A method according to claim 16 further comprising ~~the step of~~ encoding reference data, virtual view data and panoramic view data for output.

21. (Currently amended) A system for creating signals indicative of a graphical user interface from wide-angle image data corresponding to a monitored area, said system comprising:
means for storing wide-angle image data corresponding to a monitored area; and
means for processing and transforming said wide-angle image data received from said storing means into panoramic view data corresponding to at least one panoramic view of the

monitored area and into virtual view data corresponding to at least one virtual view of a portion of the at least one panoramic view.

22. (Cancelled)

23. (New) A system according to claim 14, wherein the size and the position of each reference window determines pan, tilt and zoom values for the corresponding virtual view.

24. (New) A system according to claim 15, wherein the at least one reference window is user-selectable for controlling the size and the position of the reference window to determine pan, tilt and zoom values for the corresponding virtual view.

25. (New) A method according to claim 16, wherein the at least one panoramic view includes:

- a first panoramic view corresponding to a first portion of the monitored area;
- a second panoramic view corresponding to a remaining portion of the monitored area;

and

the at least two panoramic views combine to provide a 360° view of the monitored area relative to a vertical axis; and

wherein said method further comprises encoding the at least two panoramic views and at least one virtual view of a portion of at least one of the at least two panoramic views for simultaneous display.

26. (New) A method according to claim 17, further comprising:

determining a position and a size of at least one reference window positioned over the portion of at least one of the at least one panoramic view corresponding to the virtual view, the position and size defined according to user command data; and

wherein the pan, tilt and zoom values are based upon the position and the size of the at least one reference window.